laterals 15-24 mm long, the terminals 48-59 mm long. Staminate inflorescences axillary panicles, branched from the base, spreading, densely yellowish-tomentose, to 19 cm long. Staminate flowers cream-yellow, 4-merous; pedicels sparsely yellowish-tomentose, 1.5-3 mm long; calyx broadly cupular, sparsely yellowish-tomentose, ca. 1 mm high and 2.5 mm wide, the lobes 4, acute, spreading; corolla yellowish, tubular, densely yellowish-tomentose without, pubescent within, ca. 3 mm long, the lobes 4, thick, acute, 1-1.5 mm long and ca. 1 mm wide, with an incurved apical process adaxially; stamens 8, ca. as high as the corolla tube, the filaments subulate, inserted at the base of the disc between the lobes, the 4 opposite the sepals adnate basally to the corolla below the clefts, the anthers sagittate, basifixed; disc sulcate, 8-lobed, glabrous, half as high as the ovary; ovary tomentose, ovoid, ca. 1 mm in diameter. half immersed in the disc, the style columnar. Fruits unknown.

Type. Panama: Bocas del Toro Province, Fish Creek Hills, *H. von Wedel 2398* (GH, M0-holotype, US) May 7, 1941. Known only from

the type collection.

Tetragastris tomentosa is easily separated from T. panamensis (Engl.) O. Ktze., the only other species of the genus known from Panama, by a number of characters, the most obvious being its 4-merous flowers and the conspicuous yellow tomentum on the midribs of the leaflets. Tetragastris panamensis has 5-merous flowers and sparingly pubescent to glabrate lower leaflet midribs. A flower will be illustrated in the forthcoming treatment of the Burseraceae for the Flora of Panama.

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## NOTES ON SOME MEXICAN SPECIES OF GOSSYPIUM (MALVACEAE)

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Gossypium aridum (Rose & Standley) Skovsted was originally described as Erioxylum aridum Rose & Standley and based on material from the state of Sinaloa (Culiacan, Rose, Standley & Russell 14199, US). Rose and Standley regarded this species as distinct from Erioxylum palermi (Rose) Rose & Standley based on a collection from Colima (Palmer 1316, GH, MEXU, US). Prokhanov accepted this view and transferred the latter species, then known only from the type, to Gossypium as G. rosei Prokh. Consequently, G. aridum has long been regarded as endemic to Sinaloa.

The distinctions between these two taxa are slight. Indeed, more recently collected material shows that they are conspecific. Moreover, this species ranges southeastward far beyond the states of Sinaloa and Colima, covering at least 1000 miles of the west coast of Mexico, and extending to beyond Tehuantepec. The following is a list of specimens

of G. aridum excluding numerous collections from Sinaloa.

COLIMA: Tecomán, Miranda 9108 (MEXU); Tecolapa, McVaugh 15543 (MEXU, US). JALISCO: Navidad, McVaugh 11882 (MEXU). MICHOACAN: Infiernillo, Bratz s.n., 28.xi.1964 (MEXU). GUERRERO: 95 miles NW of Acapulco, Fryxell 625 (TAES); 57 miles NW of Acapulco, Anderson & Laskowski 4489 (MICH-n.v.), Fryxell 624 (GH, MICH, TAES, UT); Acapulco, Miranda 4350 (MEXU). OAXACA: 5 miles W of Tehuantepec, Fryxell 753 (F, MEXU, MO, NA, TAES, U, UC, US), Smith 3221 (n.v.: MEXU, PH, US); 7 miles W of Nilotepec, Fryxell & Bates 908 (BH, TAES).

Two recent articles (Fryxell, 1965; Fryxell and Parks, 1967) have dealt with the distribution of *Gossypium trilobum* (Moc. & Sess. ex DC). Skov. An additional specimen has come to my attention from Polotitlán (*Miranda 27172*, MEXU) that extends our knowledge of the distribution of this species. Polotitlán is in the northern extremity of the state of México at an elevation of 2400 m. Previous collections have all been made between 800 and 1800 m elevation.

This record notably extends not only the geographical and altitudinal ranges of *G. trilobum* but also those of the entire subgenus, composed of the American diploid species of *Gossypium*, of which *G. trilobum* is the type species. These plants are distributed solely on the Pacific (western )slopes of the New World, except in the Isthmus of Tehuantepec, where *G. gossypioides* (Ulbr.) Standley also crosses a short distance to the east of the continental divide north of Oaxaca. The present specimen was collected very near the continental divide and, in fact, from an area that drains to the east. This additional trivial exception emphasizes the distinctive western distribution of the group. No collections have previously been reported, to my knowledge, from elevations this high.

The basionym of Gossypium gossypioides (Ulbr.) Standley is Selera gossypioides Ulbr., and was based on a specimen from Oaxaca (San Bartolo Yautepec, C. & E. Seler 1700, Jan. 6, 1896). The holotype was at the Berlin herbarium but is now lost. Since no isotypes are known to exist, and Ulbrich cited no other material, it becomes necessary to designate a neotype.

Such a designation raises no significant problems, since the species shows relatively little variability and is quite distinctive, both in morphology and in distribution. Ulbrich indeed chose to place it in a monotypic genus. The specimen chosen as neotype was collected within approximately 10 km of the type locality, at what appears to be the lower elevational limit of the species, these limits being approximately 800–1400 m.

Neotype of Selera gossypioides Ulbr.: OAXACA: 39 km W of Tequisistlán, on Hwy. 190 at K 706½, in rocky hills. Elev. 2900 feet. Tree to 15 feet tall. Fryxell 757 (F, MEXU, MO, NA, US-neotype, TAES), Sept. 9, 1968.

Note added in proof: The distribution of *G. aridum* may also be extended inland to the state of Puebla on the basis of the following specimens. PUEBLA: Tecomatlán, C. Pollatzin, *Miranda 2609* (MEXU); Tecuatitlán San Martín. near Tecomatlán, 3000 ft. alt., *Fryxell 759* (ARIX, MEXU, MICH, NA, NY, US), *Fryxell & Bates 918* (BH, MEXU, NA, US).

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## LITERATURE CITED

Fryxell, P. A. 1965. A further description of Gossypium trilobum. Madroño 18:113-118.

-----, and C. R. Parks. 1967. Gossypium trilobum: an addendum. Madroño 19:117-123.

## NOTES AND NEWS

RECORDS AND OBSERVATIONS ON A RARE PLANT, OXALIS LAXA IN CALIFORNIA. — Oxalis laxa H. & A. has previously been reported as sparingly naturalized at Stinson Beach, Marin Co. and near San Andreas, Calaveras Co., California where it has been introduced from Chile (Munz, A California flora, 1959). Recent field collections and subsequent investigation of previously undetermined specimens in the Fresno State College Herbarium have revealed several additional populations, some very extensive, outside the range reported in Munz. The new populations are documented by herbarium vouchers filed at Fresno State College Herbarium. My collections have been widely distributed to other institutions.

The sites reported below are centered in an area less than ten miles wide on either side of the San Joaquin River extending both upstream and downstream from the former site of Fort Millerton. All collections were made between 300 and 700 feet elevation. Those sites some distance removed from the river are found in drainage basins of creeks where the plants usually grow on high, dry soil away from streamside. Soil is thin, of decomposed granite, and usually supports sparse vegetation. Oxalis at these sites may grow fully exposed to sun or occasionally in dense shade provided by boulders or scattered shrubs of Ceanothus cuneatus or Lupinus albifrons and trees of Quercus douglasii.

Plants grown from seeds taken at the Madera Co. site yielded chromosome counts of  $\mathbf{n}=10$  from pollen mother cells squashed in aceto-carmine and proved to be self-compatable, setting abundant seeds when cultivated individually in pots. In this respect the plants are illustrative of the idea proposed by Baker (Evolution 9:347–348, 1955) that establishment after long distance dispersal is greatly enhanced if the organism is self compatable. It remains to be seen whether this group of populations is to be regarded as resulting from a separate introduction or whether it is part of a much broader undetected distribution in the sierran foothills ranging southward from the San Andreas site.

Fresno Co.: along the San Joaquin River near Fort Millerton, *Quibell 1158*, April 4, 1929; Temperance Flat east of Friant, *B. Brock 415*, March 19, 1959; along the San Joaquin River 2 miles downstream from Friant Dam, *Field & Munger*, May 1, 1960; along Little Dry Creek near its crossing with Millerton Road 2 miles east of Auberry Road junction, *Weiler 65024*, April 13, 1965.

Madera Co.: near Cottonwood Creek 5 miles north of the San Joaquin River between Friant and North Fork, Weiler 65007, March 5, 1965.—John Weiler, Department of Biology, Fresno State College, Fresno.